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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,491	04/21/2000	Scott E. Moore	MI22-1422	6392

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EXAMINER

BERRY, WILLIE WENDELL JR

ART UNIT PAPER NUMBER

3723

DATE MAILED: 12/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,491

Applicant(s)

MOORE ET AL.

Examiner

Willie Berry, Jr.

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-42 and 53-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58 is/are allowed.
- 6) ☒ Claim(s) 39-42 and 53-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>11</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122 (b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

2. Claims 36, 40, and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by patent no. 6,048,256 to Obeng et al.

Obeng discloses semiconductor workpiece processing method comprising: a chamber (110), a slurry supplying connection (123a-123h), a sensor for monitoring the turbidity (column 2, lines 61-67), a signal (column 4, lines 57-67), and a chemical-mechanical polishing process chamber (180).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obeng et al.

Obeng discloses as discussed above.

Obeng does not disclose the specific location of the sensor.

The specific location of the sensor would have been obvious to one having ordinary skill in the art at the time the invention was made, since it is within the general skill of the worker in the art to rearrange parts of an invention on the basis of its suitability for the user's preference as a matter of obvious design choice.

5. Claims 39, 41, and 53-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obeng et al. in view of Uzoh.

Obeng discloses as discussed above.

Obeng does not disclose the electromagnetic energy and insulting the slurry from the sensor.

Uzoh discloses electromagnetic energy (column 10, line 58) and insulting the slurry from the sensor (not numbered but shown in figure 1) for the purpose of providing a chemical mechanical polishing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Obeng to include the electromagnetic energy and insulting the slurry from the sensor as taught by Uzoh for the purpose of providing an improved chemical mechanical polishing process.

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Response to Arguments

6. Applicant's arguments filed April 24, 2002 have been fully considered but they are not persuasive. Applicant argues Obeng does not disclose monitoring the turbidity as disclosed by applicant. The examiner disagrees because Obeng discloses monitoring slurry and its turbidity within a dispenser before it reaches the process chamber. Applicant argues Obeng does not disclose slurry supply connections. The examiner disagrees because the components supplied to the slurry help make-up the composition of slurry. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Allowable Subject Matter

7. Claim 58 is allowed.

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Conclusion

Any inquiry concerning this communication from the examiner should be directed to Willie Berry whose telephone number is (703) 308-7467.

WB

Willie Berry, Jr. :wbj
December 2, 2002



Joseph J. Hail, III
Supervisory Patent Examiner
Technology Center 3700